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Basic Market Survey of the

Poultry International

AUDIENCE

Geographic Analysis of:

- Poultry Production Volume; Expansion Expectations
- Feed Sources
- Health Problems; Control Practices
- Poultry Production Equiqment Used; Needing Most Improvement
- Egg and Poultry Processing
- Readers' Sources of Buying Information
- Other Information

January 1986

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HELP IN READING THIS REPORT

We numbered the survey findings that appear on pages 5 through 54 to MATCH the **question numbers** on the questionnaire at the back of this report. Therefore in using the questionnaire as a table of contents, the answer to any question is quickly located by going directly to the finding (answer) that has the same number as the question.

Highlights are on pages 3 and 4.

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POULTRY INTERNATIONAL BASIC MARKET SURVEY

Purpose of Survey

The main purpose of this 1985 survey of the POULTRY INTERNATIONAL audience was to update the bulk of the market information collected in 1982, and to permit measurements of intervening changes.

SURVEY METHOD

Sample Design: Every nth name was computer-drawn from the January 1985 POULTRY INTERNATIONAL BPA qualified circulation list of Egg Producers; Broiler Producers; Turkey Producers; Pullet Growers; Flock Supervisors and Servicemen; Nutritionists and Veterinarians; Hatcherymen/Breeders; Importers of Hatching Eggs/Chicks; Feed Manufacturers, Dealers and Importers; Poultry Processors; Further Processors; Poultry Marketing Firms; Cold Stores; Chain Store Buyers and Importers of Dressed Poultry; Shell Egg Processors; Egg Products Manufacturers; and Egg Marketing Firms. The value of n was such as to cover these lists and provide some 1,500 names. The list was arranged in country number sequence during the nth name extraction.

Sample Size:

	Combined Areas	Europe	Middle East And Africa	Asia (except Middle East) And Pacific
Number in mailing sample.....	1,500	490	489	521
Number of usable returns.....	807	269	280	258
Number of unusable returns (including second returns from same individual)	157	30	72	55
Number of returns.....	964	299	352	313
Percent response.....	64.3%	61.0%	72.0%	60.1%

Respondents replied without a tangible incentive, and, instead, furnished their own international airmail postage.

Questionnaire Design: The questionnaire - at the back of this report - was designed mainly to obtain the information felt most needed by the POULTRY INTERNATIONAL staff. The order, arrangement, and wording of the questions were guided by generally accepted mail survey technique.

Mailing Procedure: Computer-printed control cards containing the survey sample names and other information were numbered consecutively. Each questionnaire mailed was also numbered to match the number assigned the recipient on the control card.

The first mailing went out on January 21 1985. About a week later a post card reminder was sent to each person on the sample list.

A follow-up questionnaire was mailed on April 4th, to all non-respondents.

A third questionnaire (second follow-up) identical to those in the earlier mailings went out to second mailing non-respondents on May 14th.

Tabulation and Report Writing: The survey returns were computer-tabulated by Analytical Computer Service Inc., Chicago. The Watt Publishing Co. Research Section wrote this report.

HIGHLIGHTS

1. At survey time - spring of 1985 - egg producers each had a median average of about 40,000 layers - up from 25,000 earlier reported for 1982, and 19,600 in 1977. And the median number of broilers raised in the preceding twelve months leaped to about 307,000 per broiler producer - up from 127,000 earlier reported for 1982, and 75,000 in 1977. (pages 9 - 10)

2. Out of a list of eleven, the broiler trait cited as most important by the largest percent of broiler producers - 77% - was Broiler Feed Conversion, followed by Broiler Growth Rate - 69% - up from 64% earlier reported for 1982, and Disease Resistance of Broilers - 62% - up from 55%. (page 15)

3. The percent of all producers reporting any serious poultry health problems in the preceding twelve months was 84% - ranging from 67% in Europe to 91% in the Asia/Pacific region. The disease CRD, Air Sac or PPLO was ranked as a problem by the largest percent - 64% - of these producers - up from 59% earlier reported for 1982, followed by Coccidiosis - 60% - up from 52%. Anticoccidial agents are used by 84% of all the poultry producers, and antibiotics to prevent or treat poultry disease were used in the preceding twelve months by 82% of all producers. (pages 18 - 19, 21 - 22)

4. 64% of the egg producers house some or all of their layers in cages or batteries. Most widely-reported by this group are Stair Step Tiered cages with 3 decks - used by 41%; 2 decks used by 33%; and Flat Deck (Colony) cages used by 25% - ranging from 17% in Europe to 39% in Asia/Pacific. (pages 26 - 27)

5. While the percent of poultry producers using Open Housing Without Fans dropped from 52% earlier reported for 1982 to 47%, the percent using Closed Housing (With Pressure-Ventilation System and Controlled Environment) grew from 30% to 34% - ranging from 12% in Asia/Pacific to 74% in Europe. (page 28)

(MORE)

6. Among the more-than-twenty types of poultry production equipment that producers feel need the most improvement in design, construction, or performance, the type written-in by the largest percent - 30% - was Feeding Systems - up from 23% earlier reported for 1982; followed by Drinkers, Waterers - 22%; Ventilation, Cooling, Humidity Equipment - 22%; and Cages - 20% - up from 11%. (page 30)

7. In answer to the question "Do you expect to build additional poultry housing in the next two years?" 61% of all the producers said "Yes," ranging from 39% in Europe to 72% in the Middle East and Africa. Among prospective builders, 78% expect to buy all their additional housing and equipment from two or more sources, and 19% expect to use only one source - up from 16% - with increases in all three regions. (pages 31 - 32)

8. The percent of broiler producers who transport live broilers to the processing plant only in plastic crates or coops jumped from the 54% earlier reported for 1982 to 60% - ranging from 45% in Asia/Pacific to 82% in Europe. (page 33)

9. (a) The percent of users of egg grading equipment with a capacity of 10,000 or more eggs per hour soared from the 36% earlier reported for 1982 to 50% in 1985; (b) the percent of egg cartoners cartoning eggs mechanically jumped from 14% to 23%; and (c) the percent of egg cartoners cartoning 50,000 or more eggs per week went up from 56% to 64%. In the above three cases, comparable growth occurred in all three regions. (pages 35 - 37)

10. The percent of broiler processors who can process 2,000 or more broilers per hour grew from 36% (earlier reported for 1982) to 46% in 1985 - with all three regions scoring major gains. (page 40)

11. Of 11 listed sources of information that readers used in 1985 in deciding whether they will buy any particular poultry health product, chick or poult, or equipment, **magazines** were cited third most often for Chicks or Poults, second most often for Poultry Health Products, and most often for Equipment. (page 43)

DETAILED FINDINGS

1. READERS'* POULTRY BUSINESS ACTIVITIES

	Combined Areas	Europe	Middle East And Africa**	Asia (except Middle East) And Pacific**
Respondents..	786	258	277	251
Percent of readers reporting:				
Producer of table eggs (for eating).....	42%	33%	55%	37%
Producer of started pullets (for use by others)....	15%	14%	20%	10%
Layer breeder or layer hatching egg producer.....	17%	17%	20%	14%
(Any of above).....(52%)		(43%)	(64%)	(48%)
Producer of broilers (for eating).....	36%	26%	51%	31%
Broiler breeder or broiler hatching egg producer...	22%	19%	25%	21%
Producer of turkeys (for eating).....	5%	6%	6%	1%
Turkey breeder or turkey hatching egg producer.....	2%	3%	4%	***
Duck producer or breeder.....	3%	2%	3%	3%
(Any of above).....(75%)		(64%)	(86%)	(75%)
Poultry hatcheryman (fertile egg incubation).....	26%	23%	30%	25%
Feed manufacturer.....	25%	20%	30%	24%
Shell egg processor.....	4%	7%	2%	4%
Poultry meat processor.....	11%	12%	12%	8%
Other, written-in:				
Veterinary health products.....	4%	6%	1%	6%
Veterinarian.....	4%	5%	4%	3%
Poultry production equipment.....	3%	5%	1%	2%
Miscellaneous (less than 2% each).....	14%	15%	14%	10%
TOTAL.....233%		213%	278%	199%

*"Readers" refers to that portion of the January 1985 Poultry International BPA qualified circulation list classified as Egg Producers; Broiler Producers; Turkey Producers; Pullet Growers; Flock Supervisors and Servicemen; Nutritionists; Veterinarians; Hatcherymen/Breeders and Importers of Hatching Eggs/Chicks; Poultry Feed Manufacturers, Dealers and Importers; Poultry Processors, Further Processors, Poultry Marketing Firms, Cold Stores, Chain Store Buyers and Importers of Dressed Poultry; and Shell Egg Processors, Egg Products Manufacturers and Egg Marketing Firms. The number on this circulation list was 14,432; and the approximate geographic break-out was: Europe - 4,719; Middle East and Africa - 4,705; and Asia (except Middle East) and Pacific - 5,008.

**For purposes of this survey, the region designated as (1) "Middle East and Africa" comprises the 16 Asian countries of Bahrain, Cyprus, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Oman, Pakistan, Qatar, Saudi Arabia, Syria, Turkey, United Arab Emirates, and Yemen, plus all of Africa (of which Algeria, Egypt, Libya, Morocco, Sudan, and Tunisia are considered as part of the Middle East); while (2) "Asia (except Middle East) And Pacific" includes the Asian mainland (except the Middle East), and islands of the Pacific Ocean.

***Less than 0.5%.

2. "Do you share your copy of Poultry International with anyone else?"

	Combined Areas	Europe	Middle East And Africa	Asia (except Middle East) And Pacific
Respondents..	767	251	268	248
Percent of subscriber readers answering "Yes".....	61%	53%	69%	62%
(a) "If 'yes,' about how many others share your copy of Poultry International?"				
Respondents..	446	126	177	143
Among subscriber readers who share their copy of Poultry International, percent who share it with . . .				
10 or more other people....	11%	4%	15%	13%
5 - 9 other people.....	21%	10%	27%	22%
3 - 4 other people.....	30%	37%	26%	30%
1 or 2 other people.....	38%	49%	32%	35%
Among subscriber readers who share their copy of Poultry International, average number of pass-along readers per copy.....	4.8	3.1	5.8	5.1
Among all subscriber readers, average number of pass-along readers per copy.....	3.0	1.7	4.0	3.2

3. "If you have a poultry hatchery, how many hatching eggs can your incubator(s) hold at one time?"

	Combined Areas	Europe	Middle East And Africa	Asia (except Middle East) And Pacific
Respondents..	207	60	83	64
Percent of hatcherymen reporting:				
500,000 or more hatching eggs.....	26%	37%	17%	26%
200,000 - 499,999 hatching eggs.....	14%	20%	13%	8%
50,000 - 199,999 hatching eggs.....	29%	25%	30%	33%
Under 50,000 hatching eggs.....	31%	18%	40%	33%
Average hatching egg capacity, per hatcheryman	366,100	486,600	307,000	329,900

4. TYPE(S) OF POULTRY PRODUCED

	Combined Areas	Europe	Middle East And Africa	Asia (except Middle East) And Pacific
Respondents..	581	167	233	181
Percent of producers* reporting:				
Now have laying hens (table egg or layer or broiler breeder) or laying pullets.....	70%	64%	75%	70%
Raised pullet chicks in preceding twelve months.	48%	38%	57%	48%
Raised broilers in preceding twelve months.....	48%	32%	60%	42%
Raised turkeys in preceding twelve months.....	6%	7%	8%	2%
Raised ducks in preceding twelve months.....	3%	3%	3%	2%

*"Producers" refers to readers who raise or keep poultry. Producers in the study issue numbered approximately as follows: Combined Areas - 10,824; Europe - 3,020; Middle East and Africa - 4,047; and Asia (except Middle East) and Pacific - 3,757.

5. POULTRY PRODUCTION VOLUME

Number Of LAYING Hens And/Or LAYING Pullets On The Place At Survey Time

	Combined Areas	Europe	Middle East And Africa	Asia (except Middle East) And Pacific
Respondents..	406	105	175	126
Among producers who have layers, percent having:				
100,000 or more layers.....	26%	38%	21%	23%
25,000 - 99,999 layers.....	30%	27%	29%	36%
10,000 - 24,999 layers.....	23%	26%	23%	21%
Under 10,000 layers.....	21%	9%	27%	20%
Average layer inventory, per producer having any.....	105,000	153,000	82,250	96,290

5. Total Number Of PULLET CHICKS Raised In Preceding Twelve Months

	Combined Areas	Europe	Middle East And Africa	Asia (except Middle East) And Pacific
Respondents..	269	53	131	85
Among producers who raised pullet chicks, percent raising:				
100,000 or more pullet chicks.....	30%	59%	26%	19%
25,000 - 99,999 pullet chicks.....	23%	23%	26%	19%
10,000 - 24,999 pullet chicks.....	25%	9%	25%	33%
Under 10,000 pullet chicks.....	22%	9%	23%	29%
Average number of pullet chicks raised, per producer raising any.....	188,800	398,600	151,800	114,900

5. Total Number Of BROILERS Raised In Preceding Twelve Months

Respondents..	276	62	138	76
Among producers who raised broilers, percent raising:				
1,000,000 or more broilers.....	20%	42%	12%	16%
100,000 - 999,999 broilers.....	39%	43%	30%	50%
25,000 - 99,999 broilers.....	17%	10%	21%	17%
Under 25,000 broilers.....	24%	5%	37%	17%
Average number of broilers raised, per producer raising any.....	1,730,000	3,994,000	951,000	1,298,000

5. Total Number Of TURKEYS Raised In Preceding Twelve Months

	Combined Areas
Respondents..	33
Among producers raising turkeys, percent raising:	
200,000 or more turkeys.....	12%
50,000 - 199,999 turkeys.....	24%
5,000 - 49,999 turkeys.....	30%
Under 5,000 turkeys.....	33%
Average number of turkeys raised, per producer raising any.....	210,180

5. Total Number Of DUCKS Raised In Preceding Twelve Months

Respondents..	15*
Among producers raising ducks, percent raising:	
300,000 or more ducks.....	20%
15,000 - 299,999 ducks.....	27%
5,000 - 14,999 ducks.....	27%
Under 5,000 ducks.....	26%
Average number of ducks raised, per producer raising any.....	195,000

*Percentages and averages of this base should be viewed with more than usual caution.

6. "If you have any layers . . ."

(a) "Are they white egg layers, or brown egg layers?"

	Combined Areas	Europe	Middle East And Africa	Asia (except Middle East) And Pacific
Respondents..	378	92	167	119
Among producers with layers, percent having:				
White egg layers only.....	34%	22%	29%	51%
Brown egg layers only.....	42%	49%	45%	32%
Both kinds of layers.....	24%	29%	26%	17%

(b) "About how many are . . ."

"White egg layers?"

Respondents..	161	31	72	58
Among producers with white egg layers, percent having:				
200,000 or more white egg layers.....	7%	19%	5%	2%
25,000 - 199,999 white egg layers.....	33%	32%	28%	40%
10,000 - 24,999 white egg layers.....	22%	26%	25%	17%
Under 10,000 white egg layers.....	38%	23%	42%	41%
Average number of white egg layers, per producer having any.....	104,300	145,300	140,050	37,800

6(b). (cont.)

"Brown egg layers?"

	Combined Areas	Europe	Middle East And Africa	Asia (except Middle East) And Pacific
Respondents..	156	41	78	37
Among producers with brown egg layers, percent having:				
200,000 or more brown egg layers...	6%	12%	4%	5%
25,000 - 199,999 brown egg layers..	21%	24%	15%	27%
10,000 - 24,999 brown egg layers...	28%	27%	28%	27%
Under 10,000 brown egg layers.....	45%	37%	53%	41%
Average number of brown egg layers, per producer having any.....	82,300	232,500	25,600	35,000

6(c). "Which of the following traits in laying hens are most important to you?"

	Combined Areas	Europe	Middle East And Africa	Asia (except Middle East) And Pacific
Respondents..	413	108	178	127
Among producers who have layers, or raise pullet chicks, percent reporting:				
Livability.....	58%	47%	57%	67%
Early maturity.....	17%	12%	23%	13%
Feed efficiency.....	72%	76%	69%	72%
Disease resistance.....	61%	38%	72%	65%
Number of eggs.....	74%	78%	72%	74%
Egg size.....	41%	46%	40%	39%
Egg shell color.....	10%	12%	8%	11%
Shell strength.....	27%	44%	25%	14%
Egg yolk color.....	11%	12%	14%	6%
Interior egg quality....	12%	20%	7%	12%
Carcass salvage value...	5%	-	10%	3%
Day old chick price.....	15%	7%	20%	17%

7. "Which of the following broiler traits are most important to you?"

	Combined Areas	Europe	Middle East And Africa	Asia (except Middle East) And Pacific
Respondents..	405	98	179	128
Percent of broiler producers reporting:				
Parent breeder egg production.....	30%	33%	30%	28%
Parent breeder hatchability.....	28%	34%	27%	27%
Parent breeder livability.....	17%	16%	18%	17%
Broiler conformation.....	25%	32%	26%	20%
Broiler feather color.....	4%	2%	4%	6%
Self sexing.....	7%	8%	8%	5%
Broiler feed conversion.....	77%	85%	71%	80%
Broiler growth rate.....	69%	58%	72%	75%
Broiler livability.....	45%	41%	47%	44%
Disease resistance of broilers....	62%	55%	64%	66%
Price of broiler chicks.....	26%	19%	23%	34%
Other.....	1%	1%	1%	2%

8. "Which of the following sources of poultry feed do you use?"

	Combined Areas	Europe	Middle East And Africa	Asia (except Middle East) And Pacific
Respondents..	584	159	236	189
Percent of producers reporting:				
Manufacture my own feed using individual ingredients.....	30%	24%	31%	33%
Manufacture my own feed from a pre-mix.....	10%	6%	14%	10%
Mix commercial concentrate with my own grain....	12%	6%	21%	5%
Buy complete feed.....	64%	71%	61%	60%
Other.....	3%	4%	4%	2%

(a) "If you manufacture or mix any of your poultry feed, about how many tons did you make in the last twelve months?"

Respondents..	190	32	83	75
Among producers who manufacture or mix any of their poultry feed, percent reporting:				
100,000 or more tons...	7%	19%	6%	3%
10,000 - 99,999 tons...	18%	28%	17%	16%
2,000 - 9,999 tons.....	27%	15%	34%	24%
700 - 1,999 tons.....	22%	22%	14%	31%
Under 700 tons.....	26%	16%	29%	26%
Average number of tons of poultry feed, per poultry producer making any.....	12,900	25,600	12,900	7,500

9. EQUIPMENT USED BY PRODUCERS TO PREPARE POULTRY FEED

	Combined Areas	Europe	Middle East And Africa	Asia (except Middle East) And Pacific
Respondents..	364	96	146	122
Percent of producers reporting:				
Feed mixer	65%	48%	74%	69%
Feed grinder	53%	33%	66%	53%
Powered conveyor or auger	37%	43%	36%	34%
Bulk feed bins	45%	65%	37%	38%
Computer for feed formulation	23%	35%	15%	21%
Other	9%	3%	13%	10%

10. "Which of the following types of poultry feeding equipment do you use?"

Respondents..	563	149	230	184
Percent of producers reporting:				
Chain feeder	46%	78%	36%	33%
Transport hopper system	13%	21%	10%	8%
Pan system	16%	11%	19%	15%
Manual feeder, trough	40%	9%	49%	54%
Tube feeder	23%	28%	25%	17%
Other	2%	2%	3%	2%

(a) "Do you use a system that controls (restricts) feed consumption?"

Respondents..	521	139	209	173
Percent of producers answering "Yes"	47%	58%	35%	54%

11. RANKING OF POULTRY HEALTH PROBLEMS IMPORTANT TO PRODUCERS IN PRECEDING TWELVE MONTHS: COMBINED AREAS

Percent of (491 reporting) producers citing serious poultry health problems..... 84%

Poultry Health Problem	Among (411 reporting) Producers Who Reported Poultry Health Problems, Percent Assigning A Rank Of . . .												
	1	2	3	4	5	6	7	8	9	10	11	12	Any Rank
Cholera.....	2%	2%	2%	1%	1%	1%	*	*	1%	-	*	-	11%
Chronic Respiratory Disease (CRD, Air Sac or PPLO).....	32%	18%	7%	4%	1%	1%	1%	-	-	-	-	-	64%
Coccidiosis.....	21%	19%	8%	5%	4%	1%	*	*	-	*	*	-	60%
Coryza.....	6%	10%	6%	4%	2%	2%	*	*	*	-	-	-	31%
Infectious Bronchitis.....	7%	10%	7%	2%	*	1%	1%	1%	-	-	-	-	29%
Laryngotracheitis.....	1%	2%	2%	1%	1%	1%	1%	-	*	*	-	-	10%
Leukosis.....	2%	5%	4%	2%	*	1%	1%	*	1%	-	-	-	17%
Marek's.....	7%	7%	4%	4%	1%	*	1%	*	-	-	-	-	25%
Newcastle (Fowl Pest).....	15%	10%	6%	4%	2%	1%	1%	-	*	*	-	-	40%
Ticks, Mites, Lice.....	1%	2%	1%	4%	1%	1%	*	1%	-	1%	1%	-	13%
Worms.....	1%	6%	2%	4%	5%	1%	1%	-	*	1%	*	-	22%
Other.....	5%	4%	2%	1%	-	*	*	*	-	-	-	*	14%

*Less than 0.5%.

11. RANKING OF POULTRY HEALTH PROBLEMS IMPORTANT TO PRODUCERS IN PRECEDING TWELVE MONTHS: EUROPE

Percent of (137 reporting) producers citing serious poultry health problems..... 67%

Poultry Health Problem	Among (92 reporting) Producers Who Reported Poultry Health Problems, Percent Assigning A Rank Of . . .												
	1	2	3	4	5	6	7	8	9	10	11	12	Any Rank
Cholera.....	5%	-	2%	-	2%	-	-	2%	2%	-	2%	-	15%
Chronic Respiratory Disease (CRD, Air Sac or PPLO).....	23%	8%	3%	3%	3%	3%	3%	-	-	-	-	-	46%
Coccidiosis.....	25%	23%	8%	6%	3%	3%	-	2%	-	-	-	-	70%
Coryza.....	2%	-	3%	3%	5%	2%	-	-	2%	-	-	-	17%
Infectious Bronchitis.....	15%	18%	11%	3%	2%	-	3%	2%	-	-	-	-	54%
Laryngotracheitis.....	3%	5%	5%	3%	3%	3%	2%	-	-	2%	-	-	26%
Leukosis.....	6%	6%	3%	3%	-	-	-	2%	2%	-	-	-	22%
Marek's.....	11%	11%	3%	3%	2%	2%	3%	-	-	-	-	-	35%
Newcastle (Fowl Pest).....	2%	3%	3%	2%	2%	-	-	-	2%	2%	-	-	16%
Ticks, Mites, Lice.....	2%	2%	-	3%	2%	-	-	2%	-	2%	2%	-	15%
Worms.....	-	3%	3%	2%	-	2%	2%	-	2%	-	-	-	14%
Other.....	6%	6%	2%	-	-	-	-	-	-	-	-	2%	16%

11. RANKING OF POULTRY HEALTH PROBLEMS IMPORTANT TO PRODUCERS IN PRECEDING TWELVE MONTHS: MIDDLE EAST AND AFRICA

Percent of (190 reporting) producers citing serious poultry health problems..... 89%

Poultry Health Problem	Among (170 reporting) Producers Who Reported Poultry Health Problems, Percent Assigning A Rank Of . . .												
	1	2	3	4	5	6	7	8	9	10	11	12	Any Rank
Cholera.....	2%	2%	3%	2%	1%	2%	1%	-	1%	-	-	-	14%
Chronic Respiratory Disease (CRD, Air Sac or PPLO).....	30%	22%	8%	6%	2%	1%	1%	-	-	-	-	-	70%
Coccidiosis.....	20%	19%	8%	3%	5%	-	1%	-	-	-	-	-	56%
Coryza.....	3%	11%	7%	6%	1%	3%	1%	1%	-	-	-	-	33%
Infectious Bronchitis.....	6%	8%	7%	1%	-	2%	1%	1%	-	-	-	-	26%
Laryngotracheitis.....	1%	2%	3%	1%	1%	1%	1%	-	-	-	-	-	10%
Leukosis.....	2%	2%	2%	3%	1%	1%	1%	-	-	-	-	-	12%
Marek's.....	6%	7%	3%	2%	2%	-	2%	1%	-	-	-	-	23%
Newcastle (Fowl Pest).....	23%	15%	7%	5%	1%	2%	1%	-	-	-	-	-	54%
Ticks, Mites, Lice.....	1%	3%	-	3%	1%	1%	-	1%	-	1%	-	-	11%
Worms.....	1%	5%	3%	5%	6%	1%	-	-	1%	-	1%	-	23%
Other.....	5%	5%	3%	2%	-	1%	1%	1%	-	-	-	-	18%

11. RANKING OF POULTRY HEALTH PROBLEMS IMPORTANT TO PRODUCERS IN PRECEDING TWELVE MONTHS: ASIA (EXCEPT MIDDLE EAST) AND PACIFIC

Percent of (164 reporting) producers citing serious poultry health problems..... 91%

Poultry Health Problem	Among (149 reporting) Producers Who Reported Poultry Health Problems, Percent Assigning A Rank Of . . .												
	1	2	3	4	5	6	7	8	9	10	11	12	Any Rank
Cholera.....	2%	4%	1%	2%	1%	1%	1%	-	1%	-	-	-	13%
Chronic Respiratory Disease (CRD, Air Sac or PPLO).....	37%	18%	7%	3%	1%	1%	-	-	-	-	-	-	67%
Coccidiosis.....	17%	16%	8%	5%	2%	1%	-	1%	-	1%	1%	-	52%
Coryza.....	10%	12%	5%	2%	3%	2%	-	-	-	-	-	-	34%
Infectious Bronchitis.....	5%	7%	6%	1%	-	2%	1%	1%	-	-	-	-	23%
Laryngotracheitis.....	1%	2%	1%	1%	1%	1%	1%	-	1%	-	-	-	9%
Leukosis.....	1%	6%	4%	1%	1%	1%	2%	1%	1%	-	-	-	18%
Marek's.....	5%	6%	5%	6%	1%	1%	1%	1%	-	-	-	-	26%
Newcastle (Fowl Pest).....	13%	7%	6%	3%	3%	1%	1%	-	-	-	-	-	34%
Ticks, Mites, Lice.....	2%	1%	2%	4%	1%	1%	1%	1%	-	1%	1%	-	15%
Worms.....	2%	9%	1%	3%	6%	2%	2%	-	-	2%	-	-	27%
Other.....	5%	1%	2%	-	-	-	-	1%	-	-	-	1%	10%

12. "Do you use any anticoccidial agent(s) on your poultry?"

	Combined Areas	Europe	Middle East And Africa	Asia (except Middle East) And Pacific
Respondents..	573	159	234	180
Percent of producers answering:				
Yes.....	84%	79%	90%	82%
No.....	16%	21%	10%	18%

13. "Did you use any ANTIBIOTICS to prevent or treat poultry disease in the last twelve months?"

Respondents..	587	165	240	182
Percent of producers answering:				
Yes.....	82%	56%	93%	91%
No.....	18%	44%	7%	9%

14. "Against which of the following diseases do you have your poultry VACCINATED?"

	Combined Areas	Europe	Middle East And Africa	Asia (except Middle East) And Pacific
Respondents..	584	162	239	183
Percent of producers reporting:				
Avian Encephalomyelitis (AE) or Epidemic Tremor.....	33%	43%	23%	37%
Bronchitis.....	47%	62%	37%	46%
Cholera.....	10%	7%	12%	8%
Coryza.....	16%	6%	11%	31%
Fowl pox.....	54%	22%	64%	70%
Gumboro.....	48%	47%	54%	42%
Laryngotracheitis.....	19%	19%	16%	23%
Marek's.....	61%	66%	54%	67%
Other, written-in:				
*Newcastle.....	41%	24%	54%	39%
E.D.S., Egg Drop Syndrome...	3%	3%	2%	3%
Fowl Typhoid.....	1%	-	3%	-
Ranikhet.....	1%	-	-	3%
Miscellaneous (less than 2% in each region).....	5%	2%	4%	9%
(Any disease).....	(95%)	(88%)	(97%)	(97%)

(*"Newcastle" appeared in the original questionnaire listing. Its subsequent omission was not caught in proofreading.)

15. "Who decides on the particular trademark(s) or manufacturer(s) of poultry vaccine(s) that you use, if any?"

	Combined Areas	Europe	Middle East And Africa	Asia (except Middle East) And Pacific
Respondents..	568	149	234	185
Among producers who vaccinate their poultry, percent reporting:				
We do (the poultry producer)..	38%	30%	37%	45%
Veterinarian.....	60%	57%	68%	52%
Chick or poult hatchery.....	12%	17%	6%	15%
Other.....	5%	5%	6%	5%

16. "Did you use any disinfectant for poultry farm clean-up in the last twelve months?"

Respondents..	598	169	241	188
Percent of producers answering "Yes".....	96%	96%	98%	93%

(a) "If 'yes,' did you use a FOGGER for disinfecting?"

Respondents..	525	149	217	159
Among producers who used disinfectant for poultry farm clean-up, percent answering:				
Yes.....	42%	53%	39%	35%
No.....	58%	47%	61%	65%

17. "Do you use a high pressure washer?"

	Combined Areas	Europe	Middle East And Africa	Asia (except Middle East) And Pacific
Respondents..	585	168	229	188
Percent of producers answering:				
Yes.....	74%	90%	66%	67%
No.....	26%	10%	34%	33%

18. "Do you brood chicks?"

Respondents..	590	162	239	189
Percent of producers answering "Yes".....	84%	69%	91%	87%

(a) "If 'yes,' what energy source(s) do your chick brooders use?"

Respondents..	492	111	216	165
Among producers who brood chicks, percent reporting:				
Coal.....	8%	1%	13%	7%
Electricity.....	44%	27%	46%	53%
Gas.....	52%	59%	54%	46%
Oil.....	20%	30%	19%	14%
Other.....	8%	7%	9%	8%

19. "If you have layers and/or raise pullet chicks, how do you house them?"

LAYERS	Combined Areas	Europe	Middle East And Africa	Asia (except Middle East) And Pacific
Respondents..	414	101	181	132
Among producers who have layers, percent reporting:				
Cages or batteries.....	64%	73%	56%	67%
All slat or wire floors.....	6%	5%	4%	9%
Litter floor.....	33%	21%	46%	25%
Combination slat and litter floor...	10%	20%	7%	8%
Other.....	*	-	1%	-
PULLETS				
Respondents..	340	73	147	120
Among producers who raise pullet chicks, percent reporting:				
Cages or batteries.....	30%	48%	20%	32%
All slat or wire floors.....	9%	7%	6%	15%
Litter floor.....	64%	59%	76%	52%
Combination slat and litter floor...	9%	11%	8%	11%
Other.....	-	-	-	-

*Less than 0.5%.

19. (cont.)

(a) "If you use cages or batteries, which type(s) do you have?"

LAYERS	Combined Areas	Europe	Middle East And Africa	Asia (except Middle East) And Pacific
Respondents..	269	72	102	95
Among producers who have layers in cages or batteries, percent reporting:				
Flat deck (colony) cages.....	25%	17%	19%	39%
Stair step tiered cages:				
2 decks.....	33%	14%	42%	37%
3 decks.....	41%	47%	39%	38%
4 or more decks.....	8%	18%	5%	3%
Stacked cages (stacked flush):				
2 decks.....	5%	4%	10%	-
3 decks.....	13%	35%	9%	2%
4 or more decks.....	7%	15%	5%	2%
Other.....	2%	1%	2%	2%
PULLETS				
Respondents..	118	35	32	51
Among producers who raise pullets in cages or batteries, percent reporting:				
Flat deck (colony) cages.....	45%	17%	47%	63%
Stair step tiered cages:				
2 decks.....	13%	9%	13%	16%
3 decks.....	24%	34%	28%	14%
4 or more decks.....	9%	9%	6%	12%
Stacked cages (stacked flush):				
2 decks.....	7%	11%	13%	-
3 decks.....	14%	34%	6%	4%
4 or more decks.....	4%	9%	3%	2%
Other.....	3%	-	9%	-

19. (cont.)

(b) "Do you have any reverse cages (wider than deep - 1 bird deep so every bird has continuous access to feed)?"

	Combined Areas	Europe	Middle East And Africa	Asia (except Middle East) And Pacific
Respondents..	215	58	75	82
Among producers who use cages or batteries, percent answering "Yes".....	36%	24%	39%	43%

20. TYPES OF POULTRY WATERING SYSTEMS USED

Respondents..	576	156	236	184
Percent of producers using:				
Automatic:				
Fountain.....	26%	33%	30%	16%
Cup.....	18%	21%	19%	15%
Nipple drinker.	29%	51%	28%	13%
Trough.....	23%	13%	22%	33%
Other.....	6%	6%	5%	8%
Manual:				
Fountain.....	9%	3%	12%	9%
Trough.....	23%	3%	28%	34%
Other.....	4%	2%	4%	5%

21. "What poultry house ventilation system(s) do you use?"

Respondents..	587	156	240	191
Percent of producers using:				
Open housing (natural ventilation) with fans....	34%	31%	30%	42%
Closed housing (with pressure-ventilation system and controlled environment).....	34%	74%	25%	12%
(Fans and/or closed housing).....	(62%)	(95%)	(50%)	(51%)
Open housing without fans.....	47%	13%	60%	57%

22. OTHER TYPES OF FARM EQUIPMENT USED

	Combined Areas	Europe	Middle East And Africa	Asia (except Middle East) And Pacific
Respondents..	566	151	232	183
Percent of producers reporting:				
Operation alarm system.....	29%	61%	21%	12%
Closed circuit television survey system.....	*	1%	*	-
Stand-by electric generator.....	56%	62%	60%	47%
Manure purifying or oxidizing system.....	3%	5%	1%	3%
Air washer/cleaner.....	9%	8%	8%	10%
Incinerator.....	22%	21%	27%	16%
Farm tractor.....	54%	66%	56%	41%
Front end loader (tractor-mounted or self-propelled).....	25%	40%	17%	23%
Motor truck.....	44%	36%	43%	50%
(Tractor, front end loader, and/or truck).....	(70%)	(76%)	(71%)	(66%)
(Any of above).....	(87%)	(95%)	(87%)	(80%)

*Less than 0.5%.

23. "Which type(s) of poultry production equipment do you feel need the most improvement in design, construction, or performance?"

	Combined Areas	Europe	Middle East And Africa	Asia (except Middle East) And Pacific
Respondents..	155	44	62	49
Percent of producers writing-in:				
Feeding systems	30%	16%	29%	45%
Drinkers, Waterers	22%	11%	24%	29%
Ventilation, cooling, humidity equipment	22%	27%	23%	16%
Cages	20%	23%	19%	18%
Manure handling equipment	11%	7%	19%	4%
Egg collection system; graders; packers	10%	16%	10%	6%
Livestock catching, loading, handling, transport system	10%	25%	5%	4%
Housing; litter, colony type	5%	5%	6%	4%
Air washer/cleaner	4%	2%	8%	-
Electric generators	4%	5%	6%	-
Feed mill, grinder, mixer	4%	-	5%	6%
Automatic nests	3%	5%	3%	2%
Incubators	3%	7%	2%	2%
Motor truck	3%	-	6%	-
Brooding system	3%	2%	2%	4%
Computer system	2%	-	2%	4%
Farm tractor	2%	-	5%	-
Front end loader	1%	2%	-	2%
Poultry house curtains, blinds	1%	-	-	4%
Solar equipment	1%	-	3%	-
Miscellaneous (mentioned once each)	13%	5%	18%	14%

24. "Did you buy any commercial product to control rats, mice, or other rodents in the last twelve months?"

	Combined Areas	Europe	Middle East And Africa	Asia (except Middle East) And Pacific
Respondents..	573	156	232	185
Percent of producers answering:				
Yes....	75%	80%	76%	71%
No.....	25%	20%	24%	29%

25. "Do you expect to build additional poultry housing in the next two years?"

Respondents..	569	151	232	186
Percent of producers answering "Yes".....	61%	39%	72%	65%
"If 'yes,' . . ."				
(a) "For what type(s) of poultry?"				
Respondents..	345	59	167	119
Among producers who answered "Yes," percent reporting:				
For layers.....	59%	41%	65%	60%
For pullet raising.....	29%	25%	32%	28%
For broilers.....	47%	39%	50%	46%
For turkeys.....	6%	3%	10%	1%
Other, written-in:				
Breeders; broiler, layer parent stock.....	7%	5%	6%	10%
Miscellaneous (less than 2% each).....	3%	3%	4%	2%
Other, not specified.....	1%	-	1%	-

25. (cont.)

(b) "Do you expect to buy ALL your additional HOUSING and EQUIPMENT from the same SINGLE source, or from more than one source?"

	Combined Areas	Europe	Middle East And Africa	Asia (except Middle East) And Pacific
Respondents..	373	73	175	125
Among producers who expect to build additional poultry housing in the next two years, percent reporting:				
All from one source.....	19%	21%	21%	15%
From two or more sources..	78%	78%	77%	79%
Other.....	3%	1%	2%	6%

26. "Have you had any complaints about flies, odors, or water pollution from anyone in the last two years?"

Respondents..	555	145	227	183
Percent of producers answering "Yes".....	40%	30%	44%	43%

27. "If you produce broilers, are the live broilers transported to the processing plant in PLASTIC, or WOODEN crates or coops?"

	Combined Areas	Europe	Middle East And Africa	Asia (except Middle East) And Pacific
Respondents..	329	78	149	102
Percent of broiler producers reporting:				
Plastic only.....	60%	82%	59%	45%
Wooden only.....	12%	5%	13%	16%
Use both types.....	10%	4%	9%	16%
Metal.....	20%	17%	20%	22%
Other.....	9%	1%	12%	11%

28. "Do you grade shell eggs?"

	Combined Areas	Europe	Middle East And Africa	Asia (except Middle East) And Pacific
Respondents..	520	149	197	174
Percent of readers who grade shell eggs.....	39%	33%	41%	42%
(a) "About how many eggs do you grade per week?"				
Respondents..	151	47	50	54
Percent of shell egg graders reporting:				
500,000 or more eggs.....	22%	36%	18%	13%
100,000 - 499,999 eggs...	29%	34%	26%	28%
25,000 - 99,999 eggs.....	23%	19%	24%	24%
Under 25,000 eggs.....	26%	11%	32%	35%
Average number of shell eggs graded per week, per shell egg grader.....	433,000	973,500	366,400	192,100

28. (cont.)

(b) "Do you have equipment to grade shell eggs?"

	Combined Areas	Europe	Middle East And Africa	Asia (except Middle East) And Pacific
Respondents..	200	61	66	73
Percent of shell egg graders who answered "Yes".....	81%	95%	73%	77%

(1) "If 'yes,' what is the total capacity PER HOUR of your egg grader(s)?"

Respondents..	166	69	52	55
Among shell egg graders who have egg grading equipment, percent reporting:				
28,000 or more eggs....	17%	22%	19%	9%
14,000 - 27,999 eggs...	16%	29%	6%	13%
10,000 - 13,999 eggs...	17%	20%	19%	13%
4,000 - 9,999 eggs.....	24%	20%	27%	25%
Under 4,000 eggs.....	25%	8%	29%	40%

29. "Do you carton eggs?"

	Combined Areas	Europe	Middle East And Africa	Asia (except Middle East) And Pacific
Respondents..	524	154	200	170
Percent of readers who carton eggs.....	40%	32%	55%	33%
(a) "Are they cartoned by hand, or mechanically?"				
Respondents..	301	79	144	78
Percent of egg cartoners reporting:				
By hand.....	80%	57%	91%	82%
Mechanically.....	23%	47%	13%	18%
Other.....	1%	-	1%	-

29. (cont.)

(b) "About how many eggs per week do you carton?"

	Combined Areas	Europe	Middle East And Africa	Asia (except Middle East) And Pacific
Respondents..	227	51	113	63
Percent of egg cartoners reporting:				
200,000 or more eggs.....	31%	47%	31%	19%
50,000 - 199,999 eggs.....	33%	33%	27%	41%
20,000 - 49,999 eggs.....	14%	8%	19%	13%
Under 20,000 eggs.....	22%	12%	23%	27%
Average number of eggs cartoned per week per cartoner.....	348,100	597,600	324,200	188,800

(c) "What type(s) of cartons do you use?"

Respondents..	303	76	146	81
Percent of egg cartoners reporting:				
Plastic.....	31%	38%	19%	47%
Paper.....	81%	88%	84%	69%
Other.....	6%	4%	9%	4%

29. (cont.)

(d) "How many eggs can EACH of your cartons hold?"

	Combined Areas	Europe	Middle East And Africa	Asia (except Middle East) And Pacific
Respondents..	309	80	147	82
Percent of egg cartoners reporting:				
30 eggs.....	73%	60%	82%	68%
24 eggs.....	7%	13%	6%	2%
18 eggs.....	8%	23%	3%	4%
12 eggs.....	22%	34%	13%	27%
6 eggs.....	17%	48%	6%	5%
Other, written-in:				
10 eggs.....	6%	19%	1%	2%
15 eggs.....	1%	3%	-	2%
Other, not specified.....	6%	6%	7%	2%

(e) "Who decides on which COMPANY'S egg cartons you will buy?"

Respondents..	272	64	136	72
Percent of egg cartoners reporting:				
We do (the egg cartoner).....	69%	72%	75%	56%
The egg buyer that we sell to.....	26%	36%	22%	25%
Other.....	9%	-	8%	19%

30. TYPES OF EQUIPMENT USED IN READERS' POULTRY MEAT PROCESSING

	Combined Areas	Europe	Middle East And Africa	Asia (except Middle East) And Pacific
Respondents..	162	44	74	44
Among readers who process poultry meat, percent reporting:				
Ice making machine.....	31%	50%	23%	25%
Eviscerating equipment.....	43%	73%	30%	34%
Feather picking machine.....	68%	82%	61%	66%
Refrigeration equipment.....	69%	91%	65%	52%
Freezing equipment.....	62%	82%	59%	48%
Further processing equipment.....	31%	55%	24%	18%
Poultry rendering (processing water purification) equipment....	28%	43%	23%	20%
Heat recovery (recycling) system...	14%	25%	9%	9%
None of above.....	16%	2%	18%	27%

31. TYPES OF POULTRY PROCESSED

	Combined Areas	Europe	Middle East And Africa	Asia (except Middle East) And Pacific
Respondents..	156	45	73	38
Percent of poultry processors reporting:				
Broilers.....	88%	82%	95%	84%
Turkeys.....	11%	24%	8%	-
Culled layers.....	43%	44%	41%	45%
Other (roosters, ducks, geese, etc.).....	7%	9%	5%	8%

32. "If you process broilers . . ."

(a) "How many can you process per hour?"

Respondents..	112	32	51	29
Percent of broiler processors reporting:				
5,000 or more broilers.....	17%	31%	12%	10%
2,000 - 4,999 broilers.....	29%	47%	16%	35%
500 - 1,999 broilers.....	24%	16%	29%	24%
200 - 499 broilers.....	13%	3%	21%	7%
Under 200 broilers.....	17%	3%	22%	24%
Average number of broilers processed per hour per broiler processor.....	2,300	3,500	1,900	1,800

32(b)(1) Percent Of Readers' Processed Broilers That Are Shipped WHOLE; Percent Shipped CUT UP

	Combined Areas	Europe	Middle East And Africa	Asia (except Middle East) And Pacific
Respondents..	88	27	38	23
Weighted average percent of broiler processors' processed broilers that are shipped . . .				
Whole.....	76%	81%	77%	62%
Cut-up.....	24%	19%	23%	38%

(2) Percent Of Readers' Processed Broilers That Are Shipped FROZEN: Percent Shipped FRESH Chilled Or Ice Pack

Respondents..	82	26	34	22
Weighted average percent of broiler processors' processed broilers that are shipped . . .				
Frozen.....	58%	62%	65%	36%
Fresh chilled or ice pack.....	42%	38%	35%	64%

33. "If you process any poultry, do you make any FURTHER processed poultry meat products?"

	Combined Areas	Europe	Middle East And Africa	Asia (except Middle East) And Pacific
Respondents..	174	44	74	56
Percent of poultry processors answering "Yes".....	33%	50%	26%	29%
(a) "If 'yes,' which one(s)?"				
Respondents..	57	22	19*	16*
Among makers of further processed poultry meat products, percent reporting:				
Fried chicken.....	33%	23%	53%	25%
Cooked chicken other than fried...	30%	32%	26%	31%
Turkey roll, boneless turkey.....	12%	23%	11%	-
Ground poultry meat.....	33%	41%	32%	25%
Smoked poultry.....	30%	36%	32%	19%
Sausage products.....	37%	36%	37%	38%
Other, written-in:				
Chickenburger; burger.....	5%	5%	-	13%
Miscellaneous (mentioned once each).....	26%	23%	16%	44%
Other, not specified.....	5%	5%	11%	-

*Percentages of this base should be viewed with more than usual caution.

34. "To whom do you look for reliable information before you decide whether you will buy any particular animal health product, chick or poult, or equipment?"

	Combined Areas			Europe			Middle East And Africa			Asia (except Middle East) And Pacific		
	Percent of readers reporting for . . .											
	Poultry Health Products	Chicks or Poults	Equip-ment	Poultry Health Products	Chicks or Poults	Equip-ment	Poultry Health Products	Chicks or Poults	Equip-ment	Poultry Health Products	Chicks or Poult	Equip-ment
Respondents..	571	452	495	152	109	132	231	192	198	188	151	165
Manufacturer's or breeding firm's salesman..	22%	29%	29%	24%	26%	26%	19%	28%	30%	23%	33%	30%
Magazines.....	36%	28%	53%	30%	26%	52%	38%	31%	52%	38%	26%	55%
Other poultrymen.....	18%	24%	28%	19%	23%	30%	18%	24%	27%	16%	24%	28%
College or research station.....	20%	14%	11%	27%	17%	22%	19%	13%	8%	16%	14%	7%
Feed supplier.....	10%	6%	6%	11%	6%	5%	7%	7%	8%	13%	5%	5%
Serviceman.....	9%	8%	11%	10%	6%	12%	3%	6%	9%	15%	11%	11%
Chick or poult hatchery	6%	16%	3%	6%	14%	4%	5%	17%	3%	7%	17%	2%
Health product supplier other than manufacturer	13%	3%	1%	10%	1%	1%	10%	4%	3%	19%	3%	1%
Veterinarian.....	64%	22%	9%	63%	23%	10%	70%	23%	10%	56%	20%	8%
Personal trial results.	22%	32%	25%	20%	34%	29%	27%	33%	26%	17%	29%	21%
Trade fairs or exhibitions.....	13%	10%	33%	18%	16%	43%	12%	10%	30%	10%	6%	29%
Other.....	1%	2%	2%	1%	1%	2%	*	3%	3%	2%	2%	2%
(Any of above).....	(98%)	(96%)	(97%)	(97%)	(94%)	(98%)	(99%)	(98%)	(98%)	(97%)	(94%)	(96%)

*Less than 0.5%.

35. "Did you visit any poultry industry exhibitions (fairs) OUTSIDE your country in the last twelve months? (do not include fairs held in your own country)"

	Combined Areas	Europe	Middle East And Africa	Asia (except Middle East) And Pacific
Respondents..	726	233	255	238
Percent of readers answering "Yes".....	25%	44%	20%	12%
(a) "If 'yes,' which foreign poultry fairs?"				
Respondents..	169	98	46	25
Among readers who visited any poultry fairs outside their country in the preceding twelve months, percent writing-in:				
VIV; Utrecht Holland.....	36%	43%	39%	4%
Atlanta; Southeastern International.....	22%	14%	24%	52%
Paris; Salon International d'Aviculture...	18%	19%	22%	4%
World Poultry Congress; Helsinki.....	15%	10%	15%	36%
Huhn & Schwein; Hannover.....	15%	17%	11%	12%
SIMAVIP.....	4%	4%	4%	-
DLG; Frankfurt.....	2%	3%	2%	-
Stoneleigh; European Poultry Fair.....	2%	2%	4%	-
Herning Denmark.....	2%	2%	2%	-
Saudi Agriculture; Riyadh.....	1%	2%	-	-
Germany.....	15%	13%	22%	12%
U.K.; England.....	5%	7%	-	4%
Italian, Italy.....	2%	3%	-	-
Miscellaneous (mentioned once each).....	16%	15%	17%	16%

36. "Do you regularly receive any FOREIGN poultry magazines other than Poultry International? (do not include magazines published in your own country)"

	Combined Areas	Europe	Middle East And Africa	Asia (except Middle East) And Pacific
Respondents..	779	251	278	250
Percent of readers answering "Yes".....	60%	65%	63%	53%

(a) "If 'yes,' which poultry-related magazines published OUTSIDE your country do you receive regularly? (please do NOT mark any that are headquartered in your own country)"

Respondents..	460	158	172	130
Among readers who receive foreign poultry-related magazines other than Poultry International, percent reporting:				
Avian Diseases.....	10%	15%	10%	6%
British Poultry Science.....	8%	11%	8%	5%
Broiler Industry.....	11%	15%	11%	7%
Feed International.....	46%	39%	43%	57%
Feedstuffs.....	27%	37%	15%	29%
Poultry (Misset).....	10%	13%	8%	10%
Poultry Digest.....	13%	11%	14%	15%
Poultry Middle East.....	9%	5%	19%	2%
Poultry Science.....	17%	23%	15%	10%
Poultry Tribune.....	6%	8%	3%	7%
Turkey World.....	8%	12%	10%	2%
World Poultry...	47%	39%	55%	46%
World Poultry Science Journal...	16%	19%	16%	14%
Zootecnica International.....	23%	30%	21%	16%
Other.....	12%	14%	12%	13%

37. "Regarding Poultry International, are the technical articles helpful to you in making management decisions?"

	Combined Areas	Europe	Middle East And Africa	Asia (except Middle East) And Pacific
Respondents..	749	238	263	248
Percent of readers reporting:				
Often.....	37%	24%	48%	36%
Occasionally.....	60%	68%	50%	62%
Never.....	1%	2%	1%	1%
Not applicable.....	2%	6%	1%	1%

38. "How well does Poultry International cover the topics listed below?"

Respondents..	700	212	254	234
BREEDING				
Percent of readers reporting:				
Very Well.....	16%	15%	19%	15%
Adequately.....	23%	28%	18%	24%
Fairly Well.....	21%	18%	20%	25%
Poorly.....	6%	3%	11%	3%
No Comment.....	12%	15%	10%	13%

38. (cont.)

	Combined Areas	Europe	Middle East And Africa	Asia (except Middle East) And Pacific
CHICK OR POULT HATCHERY MANAGEMENT				
Percent of readers reporting:				
Very Well.....	13%	10%	13%	16%
Adequately.....	25%	21%	28%	25%
Fairly Well.....	22%	24%	20%	23%
Poorly.....	7%	5%	11%	6%
No Comment.....	12%	13%	11%	12%
NUTRITION				
Percent of readers reporting:				
Very Well.....	15%	11%	18%	16%
Adequately.....	30%	32%	25%	34%
Fairly Well.....	24%	22%	26%	22%
Poorly.....	8%	7%	8%	8%
No Comment.....	7%	8%	5%	8%

38. (cont.)

	Combined Areas	Europe	Middle East And Africa	Asia (except Middle East) And Pacific
FEEDING				
Percent of readers reporting:				
Very Well.....	16%	13%	18%	17%
Adequately.....	31%	30%	29%	34%
Fairly Well.....	24%	23%	25%	24%
Poorly.....	6%	5%	7%	6%
No Comment.....	7%	8%	6%	7%
DISEASE				
Percent of readers reporting:				
Very Well.....	20%	12%	27%	18%
Adequately.....	27%	29%	24%	29%
Fairly Well.....	24%	27%	24%	22%
Poorly.....	8%	5%	11%	9%
No Comment.....	6%	8%	3%	9%

38. (cont.)

	Combined Areas	Europe	Middle East And Africa	Asia (except Middle East) And Pacific
HOUSING				
Percent of readers reporting:				
Very Well.....	20%	14%	25%	22%
Adequately.....	28%	30%	29%	26%
Fairly Well.....	22%	22%	20%	23%
Poorly.....	7%	6%	6%	8%
No Comment.....	7%	7%	5%	9%
EQUIPMENT				
Percent of readers reporting:				
Very Well.....	32%	18%	44%	30%
Adequately.....	28%	34%	23%	27%
Fairly Well.....	17%	19%	14%	19%
Poorly.....	5%	8%	3%	5%
No Comment.....	6%	5%	5%	9%

38. (cont.)

	Combined Areas	Europe	Middle East And Africa	Asia (except Middle East) And Pacific
WASTE DISPOSAL				
Percent of readers reporting:				
Very Well.....	6%	3%	8%	7%
Adequately.....	18%	20%	17%	17%
Fairly Well.....	23%	22%	24%	22%
Poorly.....	12%	8%	12%	16%
No Comment.....	16%	18%	13%	17%
POULTRY PROCESSING				
Percent of readers reporting:				
Very Well.....	18%	11%	22%	18%
Adequately.....	23%	24%	22%	24%
Fairly Well.....	19%	20%	19%	19%
Poorly.....	3%	4%	4%	3%
No Comment.....	14%	13%	12%	15%

38. (cont.)

	Combined Areas	Europe	Middle East And Africa	Asia (except Middle East) And Pacific
POULTRY MARKETING				
Percent of readers reporting:				
Very Well.....	16%	12%	19%	15%
Adequately.....	24%	24%	27%	22%
Fairly Well.....	16%	15%	15%	19%
Poorly.....	7%	6%	6%	9%
No Comment.....	14%	17%	11%	15%
EGG PROCESSING				
Percent of readers reporting:				
Very Well.....	11%	9%	15%	9%
Adequately.....	21%	23%	19%	21%
Fairly Well.....	19%	15%	20%	23%
Poorly.....	8%	6%	10%	7%
No Comment.....	17%	21%	13%	18%

38. (cont.)

	Combined Areas	Europe	Middle East And Africa	Asia (except Middle East) And Pacific
EGG MARKETING				
Percent of readers reporting:				
Very Well.....	11%	8%	15%	8%
Adequately.....	22%	22%	21%	24%
Fairly Well.....	18%	16%	19%	20%
Poorly.....	9%	8%	11%	8%
No Comment.....	18%	22%	13%	20%
BUSINESS MANAGEMENT				
Percent of readers reporting:				
Very Well.....	17%	13%	18%	19%
Adequately.....	21%	23%	20%	21%
Fairly Well.....	22%	22%	22%	22%
Poorly.....	10%	6%	15%	9%
No Comment.....	14%	17%	10%	15%

39. "Are you interested in reading about poultry industries outside your own country or region?"

	Combined Areas	Europe	Middle East And Africa	Asia (except Middle East) And Pacific
Respondents..	778	252	273	253
Percent of readers answering "Yes".....	96%	92%	96%	98%
(a) "If 'yes,' in which of the following areas of the world outside of your own country are you most interested?"				
Respondents..	722	226	258	238
Among readers interested in reading about poultry industries outside their own country or region, percent reporting:				
Africa.....	25%	29%	35%	11%
North America.....	57%	65%	56%	51%
Central and/or South America.....	25%	19%	28%	29%
Western Europe.....	61%	75%	61%	47%
Eastern Europe.....	19%	26%	15%	16%
Middle East.....	40%	36%	51%	30%
India and/or Pakistan.....	13%	10%	16%	13%
China.....	21%	17%	13%	34%
Other Far East (Japan, Philippines, and/or Indonesia).....	30%	18%	19%	54%
USSR.....	16%	22%	14%	14%

40. "Do you receive Poultry International's once-a-year directory issued in September titled 'WHO'S WHO INTERNATIONAL In The Egg And Poultry Industries'?"

	Combined Areas	Europe	Middle East And Africa	Asia (except Middle East) And Pacific
Respondents..	769	248	272	249
Percent of readers answering "Yes".....	82%	83%	82%	81%

(a) "If 'yes,' which one of the following statements best describes how often you refer to WHO'S WHO INTERNATIONAL during a year?"

Respondents..	606	198	215	193
Among readers who answered that they receive WHO'S WHO INTERNATIONAL, percent reporting:				
Oftener than once a week.....	2%	2%	3%	2%
About once a week, on the average....	6%	5%	7%	6%
About twice a month, on the average..	14%	15%	16%	11%
Several times a year.....	49%	48%	50%	49%
Only when I first receive it (once a year).....	29%	30%	24%	32%

CONFIDENTIAL INFORMATION
To help improve
POULTRY INTERNATIONAL

issues of POULTRY INTERNATIONAL will prove useful to you.

Terry Russell, Editor

START HERE

1. Please mark (✓) **each** of the following poultry business activities in which you or your firm are engaged.

- ☐ Producer of table eggs (for eating)
- ☐ Producer of started pullets (for use by others)
- ☐ Layer breeder or layer hatching egg producer
- ☐ Producer of broilers (for eating)
- ☐ Broiler breeder or broiler hatching egg producer
- ☐ Producer of turkeys (for eating)
- ☐ Turkey breeder or turkey hatching egg producer
- ☐ Duck producer or breeder
- ☐ Poultry hatcheryman (fertile egg incubation)
- ☐ Feed manufacturer
- ☐ Shell egg processor
- ☐ Poultry meat processor
- ☐ Other (please specify) _____

2. Do you share your copy of Poultry International with anyone else? ☐ Yes ☐ No

(a) If "yes," about how many others share your copy of Poultry International?

_____ number

3. If you have a poultry hatchery, how many hatching eggs can your incubator(s) hold at one time?

_____ number of eggs

If you or your company do **not** raise or keep any poultry, nor produce hatching eggs, please mark here ( ), and skip to question 28.

4. Please mark each of the following that apply to you.

- ☐ Now have laying hens (table egg or layer or broiler breeder) or laying pullets

In last twelve months we . . .

- ☐ Raised pullet chicks
- ☐ Raised broilers
- ☐ Raised turkeys
- ☐ Raised ducks

☐ None of the above

5. What is your approximate poultry production volume? (please answer only for the poultry type(s) you **do** have)

	Number (Approximate)
Total number of laying hens (table egg or layer or broiler breeder) and/or laying pullets on the place now	_____
Total number of pullet chicks raised in last twelve months	_____
Total number of broilers raised in last twelve months	_____
Total number of turkeys raised in last twelve months	_____
Total number of ducks raised in	

6. If you have any layers . . .

(a) Are they white egg layers, or brown egg layers? (please mark)

- ☐ White egg layers only
- ☐ Brown egg layers only
- ☐ Have both kinds of layers

(b) About how many are . . . white egg layers? _____ number (42-46)

brown egg layers? _____ number (47-51)

(c) Which of the following traits in laying hens are most important to you? (please mark no more than four traits)

- ☐ Livability
- ☐ Early maturity
- ☐ Feed efficiency
- ☐ Disease resistance
- ☐ Number of eggs
- ☐ Egg size
- ☐ Egg shell color
- ☐ Shell strength
- ☐ Egg yolk color
- ☐ Interior egg quality
- ☐ Carcass salvage value
- ☐ Day old chick price

7. Which of the following broiler traits are most important to you? (please mark no more than four traits)

- ☐ Parent breeder egg production
- ☐ Parent breeder hatchability
- ☐ Parent breeder livability
- ☐ Broiler conformation
- ☐ Broiler feather color
- ☐ Sell sexing
- ☐ Broiler feed conversion
- ☐ Broiler growth rate
- ☐ Broiler livability
- ☐ Disease resistance of broilers
- ☐ Price of broiler chicks
- ☐ Other (please specify)

_____

8. Which of the following sources of poultry feed do you use? (please mark all that apply)

- ☐ Manufacture my own feed using individual ingredients
- ☐ Manufacture my own feed from a pre-mix
- ☐ Mix commercial concentrate with my own grai
- ☐ Buy complete feed
- ☐ Other (please specify) _____

(a) If you manufacture or mix any of your poultry feed, about how many tons did you make in the last twelve months?

_____ tons

9. Please mark the following types of equipment used in your poultry business to prepare feed.

- ☐ Feed mixer
- ☐ Feed grinder
- ☐ Powered conveyor or auger
- ☐ Bulk feed bins
- ☐ Computer for feed formulation
- ☐ Other (please specify)

_____

10. Which of the following types of poultry feeding equipment do you use? (please mark)

- ☐ Chain feeder
- ☐ Transport hopper system
- ☐ Pan system
- ☐ Manual feeder, trough
- ☐ Tube feeder
- ☐ Other (please specify)

_____

(a) Do you use a system that controls (restricts) feed consumption?

☐ Yes ☐ No

11. Please rank your poultry health problems by writing in "1" at the left of your most serious problem below, "2" beside the second most serious, etc., for as many as were important to you in the last twelve months.

- _____ Cholera
- _____ Chronic respiratory disease (CRD, Air Sac, or PPLO)
- _____ Coccidiosis
- _____ Coryza
- _____ Infectious bronchitis
- _____ Laryngotracheitis
- _____ Leukosis
- _____ Marek's
- _____ Newcastle (fowl pest)
- _____ Ticks, mites, lice
- _____ Worms
- _____ Other (please specify)

_____

☐ None

12. Do you use any anticoccidial agent(s) on your poultry?

☐ Yes ☐ No

13. Did you use any **antibiotics** to prevent or treat poultry disease in the last twelve months?

☐ Yes ☐ No

14. Against which of the following diseases do you have your poultry **vaccinated?** (please mark)

- ☐ Avian Encephalomyelitis (AE) or Epidemic Tremor
- ☐ Bronchitis
- ☐ Cholera
- ☐ Coryza
- ☐ Fowl pox
- ☐ Gumboro
- ☐ Laryngotracheitis
- ☐ Marek's
- ☐ Other (please specify)

_____

☐ None

15. Who decides on the particular trademark(s) or manufacturer(s) of poultry vaccine(s) that you use, if any? (please mark all that apply)

- ☐ We do (the poultry producer)
- ☐ Veterinarian
- ☐ Chick or poult hatchery
- ☐ Other (please specify)

_____

16. Did you use any disinfectant for poultry farm clean-up in the last twelve months?

☐ Yes ☐ No

(a) If "yes," did you use a **fogger** for disinfecting?

☐ Yes ☐ No

17. Do you use a high pressure washer?

☐ Yes ☐ No

18. Do you brood chicks? ☐ Yes ☐ No

(a) If "yes," what energy source(s) do your chick brooders use? (please mark)

- ☐ Coal
- ☐ Electricity
- ☐ Gas
- ☐ Oil
- ☐ Other (please specify)

_____

19. If you have layers and/or raise pullet chicks, how do you house them? (please mark)

	Layers	Pullets
Cages or batteries	☐	☐
All slat or wire floors	☐	☐
Litter floor	☐	☐
Combination slat and litter floor	☐	☐
Other (please specify) _____	☐	☐

If you use cages or batteries . . .

(a) Which type(s) do you have? (please mark)

	Layers	Pullets
Flat-deck (colony) cages	☐	☐
Stair-step tiered cages:		
2 decks	☐	☐
3 decks	☐	☐
4 or more decks	☐	☐
Stacked cages (stacked flush):		
2 decks	☐	☐
3 decks	☐	☐
4 or more decks	☐	☐
Other (please specify) _____	☐	☐

(b) Do you have any reverse cages (wider than deep—1 bird deep so every bird has continuous access to feed)?

☐ Yes ☐ No

20. Please mark the type(s) of poultry watering system(s) you use.

Automatic:	**Manual:**
☐ Fountain	☐ Fountain
☐ Cup	☐ Trough
☐ Nipple Drinker	☐ Other
☐ Trough	
☐ Other	

21. What poultry house ventilation system(s) do you use? (please mark)

- ☐ Open housing (natural ventilation) with fans
- ☐ Open housing without fans
- ☐ Closed housing (with pressure-ventilation system and controlled environment)

22. Please mark each of the following other types of farm equipment that you use.

- ☐ Operation alarm system
- ☐ Closed circuit television survey system
- ☐ Stand-by electric generator
- ☐ Manure purifying or oxidizing system
- ☐ Air washer/cleaner
- ☐ Incinerator
- ☐ Farm tractor
- ☐ Front end loader (tractor-mounted or self-propelled)
- ☐ Motor truck
- ☐ None of above

23. Which type(s) of poultry production equipment do you feel need the most improvement in design, construction, or performance?

_____

24. Did you buy any commercial product to control rats, mice, or other rodents in the last twelve months?

☐ Yes ☐ No

25. Do you expect to build additional poultry housing in the next two years?

☐ Yes ☐ No

If "yes" . . .

(a) For what type(s) of poultry? (please mark)

- ☐ For layers
- ☐ For pullet raising
- ☐ For broilers
- ☐ For turkeys
- ☐ Other (please specify)

_____

(b) Do you expect to buy **all** your additional **housing** and **equipment** from the same **single** source, or from more than one source? (please mark)

- ☐ All from one source
- ☐ From two or more sources
- ☐ Other (please specify)

_____

26. Have you had any complaints about flies, odors, or water pollution from anyone in the last two years?

☐ Yes ☐ No

27. If you produce broilers, are the live broilers transported to the processing plant in **plastic,** or **wooden** crates or coops? (please mark)

- ☐ Plastic only
- ☐ Wooden only
- ☐ Use both types
- ☐ Metal
- ☐ Other (please specify)

_____

28. Do you grade shell eggs? ☐ Yes ☐ No

If "yes," . . . (a) About how many eggs do you grade per week? _____ Eggs (approx.)

(b) Do you have equipment to grade shell eggs? ☐ Yes ☐ No

(1) If "yes," what is the total capacity **per hour** of your egg grader(s)? (please mark)

- ☐ Under 4,000 eggs
- ☐ 4,000-9,999 eggs
- ☐ 10,000-13,999 eggs
- ☐ 14,000-27,999 eggs
- ☐ 28,000 or more eggs

29. Do you carton eggs? ☐ Yes ☐ No

If "yes" . . .

(a) Are they cartoned by hand, or mechanically? (please mark)

- ☐ By hand
- ☐ Mechanically
- ☐ Other (please specify) _____

(b) About how many eggs per week do you carton? _____ Eggs (approx.)

(c) What type(s) of cartons do you use? (please mark)

- ☐ Plastic
- ☐ Paper
- ☐ Other (please specify) _____

(d) How many eggs can **each** of your cartons hold? (please mark all that apply)

- ☐ 30 eggs
- ☐ 24 eggs
- ☐ 18 eggs
- ☐ 12 eggs
- ☐ 6 eggs
- ☐ Other (please specify) _____

(e) Who decides on which **company's** egg cartons you will buy? (please mark)

- ☐ We do (the egg cartoner)
- ☐ The egg buyer that we sell to
- ☐ Other (please specify) _____

If you do **not** process poultry meat, please skip to question 34.

30. Please mark each of the following types of equipment used in your poultry processing business.

- ☐ Ice making machine
- ☐ Eviscerating equipment
- ☐ Feather picking machine
- ☐ Refrigeration equipment
- ☐ Freezing equipment
- ☐ Further processing equipment
- ☐ Poultry rendering (processing water purification) equipment
- ☐ Heat recovery (recycling) system
- ☐ None of above

31. If you process poultry, what type(s) do you process? (please mark)

- ☐ Broilers
- ☐ Culled layers
- ☐ Turkeys
- ☐ Other (roosters, ducks, geese, etc.)

32. If you process broilers . . .

(a) How many can you process per **hour**?

_____ (approx.)
Broilers

(b) What percent of your processed broilers are . . .

(1) Shipped **whole** (not cut into parts) . . _____%
Shipped **cut up** . . . . . _____%
100%

(2) Shipped **frozen** . . . . . _____%
Shipped **fresh** chilled or ice pack . . _____%
100%

please turn to next page

33. If you process any poultry, do you make any **further** processed poultry meat products?

☐ Yes ☐ No

(a) If "yes," which one(s)? (please mark)

- ☐ Fried chicken
- ☐ Cooked chicken other than fried
- ☐ Turkey roll, boneless turkey
- ☐ Ground poultry meat
- ☐ Smoked poultry
- ☐ Sausage products
- ☐ Other (please specify)

_____

34. To whom do you look for reliable information before you decide whether you will buy any particular animal health product, chick or poult, or equipment? (please mark)

	Poultry Health Products	Chicks or Poults	Equipment
Manufacturer's or breeding firm's salesman	☐	☐	☐
Magazines	☐	☐	☐
Other poultrymen	☐	☐	☐
College or research station	☐	☐	☐
Feed supplier	☐	☐	☐
Serviceman	☐	☐	☐
Chick or poult hatchery	☐	☐	☐
Health product supplier other than manufacturer	☐	☐	☐
Veterinarian	☐	☐	☐
Personal trial results	☐	☐	☐
Trade fairs or exhibitions	☐	☐	☐
Other (please specify) _____	☐	☐	☐
None	☐	☐	☐

35. Did you visit any poultry industry exhibitions (fairs) **outside** your country in the last twelve months? (do not include fairs held in your own country)

☐ Yes ☐ No

(a) If "yes," which foreign poultry fairs?

_____

36. Do you regularly receive any **foreign** poultry magazines other than Poultry International? (do not include magazines published in your own country)

☐ Yes ☐ No

(a) If "yes," which poultry-related magazines published **outside** your country do you receive regularly? (please do NOT mark any that are headquartered in your own country)

- ☐ Avian Diseases
- ☐ British Poultry Science
- ☐ Broiler Industry
- ☐ Feed International
- ☐ Feedstuffs
- ☐ Poultry (Misset)
- ☐ Poultry Digest
- ☐ Poultry Middle East
- ☐ Poultry Science
- ☐ Poultry Tribune
- ☐ Turkey World
- ☐ World Poultry
- ☐ World Poultry Science Journal
- ☐ Zootecnica International
- ☐ Other (please specify) _____

37. Regarding Poultry International, are the technical articles helpful to you in making management decisions? (please mark)

- ☐ Often
- ☐ Occasionally
- ☐ Never
- ☐ Not applicable

38. How well does Poultry International cover the topics listed below? (please mark)

	Very Well	Adequately	Fairly Well	Poorly	No Comment
Breeding	☐	☐	☐	☐	☐
Chick or poult hatchery management	☐	☐	☐	☐	☐
Nutrition	☐	☐	☐	☐	☐
Feeding	☐	☐	☐	☐	☐
Disease	☐	☐	☐	☐	☐
Housing	☐	☐	☐	☐	☐
Equipment	☐	☐	☐	☐	☐
Waste disposal	☐	☐	☐	☐	☐
Poultry processing	☐	☐	☐	☐	☐
Poultry marketing	☐	☐	☐	☐	☐
Egg processing	☐	☐	☐	☐	☐
Egg marketing	☐	☐	☐	☐	☐
Business management	☐	☐	☐	☐	☐

39. Are you interested in reading about poultry industries outside your own country or region?

☐ Yes ☐ No

(a) If "yes," in which of the following areas of the world outside of your own country are you most interested? (please mark)

- ☐ Africa
- ☐ North America
- ☐ Central and/or South America
- ☐ Western Europe
- ☐ Eastern Europe
- ☐ Middle East
- ☐ India and/or Pakistan
- ☐ China
- ☐ Other Far East (Japan, Philippines, and/or Indonesia)
- ☐ USSR

40. Do you receive Poultry International's once-a-year directory issued in September titled "WHO'S WHO INTERNATIONAL In The Egg And Poultry Industries"?

☐ Yes ☐ No

(a) If "yes," which one of the following statements best describes how often you refer to WHO'S WHO INTERNATIONAL during a year? (please mark)

- ☐ Oftener than once a week
- ☐ About once a week, on the average
- ☐ About twice a month, on the average
- ☐ Several times a year
- ☐ Only when I first receive it (once a year)

Thank you for returning this folder promptly. We appreciate your interest in POULTRY INTERNATIONAL. We are sure this information will help us make [illegible] more valuable to you.

POULTRY INTERNATIONAL
Mount Morris, Illinois 61054 USA